

March 18, 2011

Mr. James Goldstene, Executive Officer
California Air Resources Board
1001 I street
Sacramento, CA 95812

Re: Sacramento Valley Air Quality Data Problems

Dear Mr. Goldstene:

The Sacramento Valley Air Basin conducts an intensive and effective Smoke Management Program (SMP) to protect air quality while managing agricultural burning emissions. An integral part of the SMP is use of current $PM_{2.5}$ air quality data in equations to determine the total acres of agricultural residue that can be safely burned on a given day. See following examples:

$$\text{Allocation} = (-1/0.006) * (-170 + (1 * \text{amstab}) + (0.2049159 * 500\text{mb}12) - (0.3579679 * \text{WS}) + (1 * \text{PM}_{2.5} \text{ 0-6}))$$

When any district's midnight to 6:00 a.m. average $PM_{2.5}$ is ≥ 27 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) increasing concentrations will result in increasing reductions in allocated acres (e.g., 27-28 is 20%, 29-30 is 40%, 31-32 is 60% and 33-34 is 80%). When any district's midnight to 6:00 a.m. average $PM_{2.5}$ is $\geq 35 \mu\text{g}/\text{m}^3$ a no burn day will be declared in that district.

When burning is authorized the real-time, hourly $PM_{2.5}$ air quality data from all of the 15 air monitoring sites in the Valley provide important feedback to the nine Sacramento Valley Air Basin air districts on the dispersion of the smoke. The hourly $PM_{2.5}$ air quality data helps air district staff decide where to allow burning and how many acres. It also shows districts if there are any impacts from the burning in cities and towns. These data are critical to protecting public health and managing the particulate emissions from burning.

Many of the Sacramento Valley air monitoring sites are operated by the Air Resources Board (ARB). Over the last two years we have been very concerned about interruptions in the $PM_{2.5}$ hourly data sometimes lasting several consecutive days. This lack of data has been most problematic during the fall months when a significant amount of rice straw is burned in the Valley. Without $PM_{2.5}$ data, the ARB acreage allocation equation cannot be run and local air quality conditions are unavailable making daily decisions difficult.

In the fall of 2010, from September 15 through November 30, there were approximately 20 percent of the days that lacked hourly $PM_{2.5}$ air quality data. There were 36,575 acres burned during this period. During the morning there was no way to determine baseline air quality for the Valley. Making decisions about the number of acres to burn and the best location for the burning was also affected. One critical ARB $PM_{2.5}$ air monitoring site in Colusa County has been down since May 2010 (see attached table). More rice acres are burned in Colusa

than any other county. We have asked ARB staff about the air quality data availability problem before and been told that it would be corrected in a few days or months.

On March 8th Dr. Alberto Ayala and his staff met with us to discuss the air quality data issues and answer our questions. It was a very productive meeting. We understand that the ARB has purchased new computer servers to access the air quality monitoring data loggers. Also, a new data acquisition software module is being installed. We were assured that these upgrades would resolve the problems. Please provide the schedule to implement the new data acquisition system. The air quality districts in the Sacramento Valley Air Basin need the hourly data to effectively manage agricultural burning to protect public health and attain the ambient air quality standards.

Thank you for your consideration of our request.

Regards,

Mat Ehrhardt, Chairman
Sacramento Valley Air Basin Technical Advisory Committee

CC: Alberto Ayala
John DaMassa

Year 2010

Colusa PM2.5 Data - Sunrise Monitoring Site

Day of Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	25.2	8.0	10.4	2.3	2.9	2.8	12.2					
2	9.8	3.8	3.9	2.6	3.5							
3	11.8	9.9	3.0	3.6	4.4							
4	9.3	25.4	5.3	4.2	3.9							
5	7.3	8.0	7.7	1.8	5.4				6.0			
6	14.5	4.3	4.5	2.5	2.7							
7	9.2	4.1	8.5	3.5	5.9	2.9	6.6					
8	11.3	7.2	4.2	5.5	3.9					8.1		
9	4.4	3.8	3.1	3.0	6.3							
10	6.1	5.5	3.5	8.9	1.9							
11	11.8	7.6	5.6	7.2	3.4				1.0	5.6		
12	14.3	9.5	6.8	3.1	4.0			6.1				
13		8.9	3.3	4.8	6.7	3.3	8					
14		5.6	2.1	6.6	8.5							
15		4.3	7.2	4.1	11.0							
16		8.8	10.0	5.0	7.1							
17		7.8	7.9	4.5	5.8				3.9	4.6		
18		11.5	4.0	4.9	3.9			4.1				
19		20.2	6.6	4.5	5.3		4.9					
20		11.3	11.1	1.7	4.8							
21		3.4	7.5	2.2	5.8							
22	3.6	5.5	8.6		3.3	8.7						
23	7.8	9.9	5.1		1.0	8.3				2.2		
24	6.8	3.5	7.7		6.1	10.3		4.7				
25	7.0	5.3	3.1		6.2	9.1	5.9					
26	4.9	9.0	5.1	6.0		9.8						
27	4.4	3.1	6.7			9.7						
28	16.8	3.9	7.7									
29	15.2		5.7						7.4	3.4		
30	12.1		2.8	1.7				5.2				
31	7.2		2.7				5.9					